Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S9	23	sluka-peter.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/05/16 13:47
S32	40547	((427/414,214,220,222,338) or (428/407,403) or (424/78.08,460, 491) or (436/533-534,86) or (435/7. 1,7.5,7.8,177,180-181,188,814) or (106/38.4) or (530/350,402,421, 810,812,815-816)).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2005/05/19 15:45
S36	14972	S35 and (latex polystyrene polyurethane hydrophobic) and protein	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/19 15:54
S37	13773	S36 and (coat$3 load$3 adsorpt$3 cross$1link$2)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/19 15:57
S38	9788	S37 and (epoxy epoxide $1tosyl $1COOH carboxy$1)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/19 15:57
S40	1610	S38 and ((coat$3 load$3 adsorpt$3 cross$1link$2) same (protein antibody) same (latex polystyrene polyurethane hydrophobic))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/19 16:01
S44	598	S38 and ((coat$3 load$3 adsorpt$3 cross$1link$2) with (protein antibody) with (latex polystyrene polyurethane hydrophobic))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/19 16:01
S67	12177	(particle microparticle bead) near polystyrene	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/20 16:34
S69	1629	S67 and protein with (particle microparticle bead) and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/20 16:35
S70	505	S69 and ((pH adj2 10$2) (pH adj2 11$2) (pH adj2 12$2) (pH adj basic))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/20 16:39
S71	125	S70 and (particle microparticle bead).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/20 16:40

S94	62	polystyrene same (avidin streptavidin biotin) same (microparticle particle bead) same (adsorption adsorbed adsorptive)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 10:34
S110	2342287	(microparticle microsphere bead) near$3 (polystyrene latex) and (microparticle microsphere)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 14:32
S113	6746	S110 and (adsorbed adsorption) same (microparticle bead microsphere) same (protein streptavidin biotin avidin antibody)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 14:33
S114	2246	S112 and (polystyrene latex) same ((pH near$2 10$2) (pH near$2 11$2) (pH near$2 12$2) (pH near alkaline) (pH near basic))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 14:37
S115	317	S114 and (microparticle microsphere bead).clm. and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 15:02
S129	2547	(polystyrene near$2 microparticle) and ((microparticle microsphere bead) same (coating coated adsorbed adsorption) same (protein peptide antibody avidin streptavidin biotin) same pH)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 15:15
S130	22	S129 and microparticle.ab. and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/23 16:50

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	103	((polymeric polymerized cross$1link$2) adj (streptavidin avidin SA))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/26 08:31
S1	40581	((427/414,214,220,222,338) or (428/407,403) or (424/78.08,460, 491) or (436/533-534,86) or (435/7. 1,7.5,7.8,177,180-181,188,814) or (106/38.4) or (530/350,402,421, 810,812,815-816)).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2005/05/25 09:05
S21	78	"polystyrene latex" same (particle microparticle) same hydrophobic and protein	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 12:29
S22	27	"polystyrene latex" same (particle microparticle) same protein same (centrifuge centrifuged centrifugation)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 12:32
S23	12	"polystyrene latex" same (particle microparticle) same protein same (filtration filtered filter)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 12:36
S24	96	polystyrene same (particle microparticle) same protein same (filtration filtered filter)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:17
S25	208536	pH near3 ((10$2 11$2 12$2 13$2 basic alkaline)(free base))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:28
S26	30930	(coat$3 load$3 adsor$8 fix$2 affix$2 immobiliz$5 bound bind$3 covalent$2 cross$1link coupl$3 attach$4) same (styrene polystyrene latex) near4 (particle microparticle bead dynabead microsphere plate surface substrate)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:10
S27	16035	S26 and (protein antibod$3 peptide antigen streptavidin avidin biotin N$1hydroxy$1succinimide)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:32
S28	6608	S25 and S27	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:29
S29	10428	S26 same (protein antibod$3 peptide antigen streptavidin avidin biotin N$1hydroxy$1succinimide)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:32

S30	4491	S25 and S29	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:30
S31	381224	(protein antibod$3 peptide antigen streptavidin avidin biotin N$1hydroxy$1succinimide)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:31
S32	10428	S31 same S26	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:31
S33	8912	(protein antibod$3 peptide antigen streptavidin avidin biotin) near9 (coat$3 load$3 adsor$8 fix$2 affix$2 immobiliz$5 bound bind$3 covalent$2 cross$1link coupl$3 attach$4) same (styrene polystyrene latex) near4 (particle microparticle bead dynabead microsphere plate surface substrate)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 16:34
S34	3876	S33 and S25	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:02
S35	1746	S34 and ((magnetite magnetic magnet) same (particle microparticle bead dynabead microsphere plate surface substrate))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:02
S36	1470	S34 and ((magnetite magnetic magnet) near5 (particle microparticle bead dynabead microsphere plate surface substrate))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:02
S37	2488	S34 and (avidin streptavidin)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:02
S38	1977	S34 and ((avidin streptavidin) same (particle microparticle bead dynabead microsphere plate surface substrate))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:03
S39	1005	S38 and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:04
S40	1596	(avidin streptavidin) same S26	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:05

S41	49	S40 same S25	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:07
S42	8	"polymerized streptavidin"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:08
S43	10	(polymeric polymerized) adj streptavidin	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:44
S44	382	streptavidin near5 (cross$1link polymer$7 glutaraldehyde)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:24
S45	126	S44 and S26	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:26
S46	108	((polymeric polymerized) adj streptavidin) (poly$1SA)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:03
S47	480	S44 or S46	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:10
S48	126	S47 and S26	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:45
S49	55	S48 and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 17:46
S50	150	((polymeric polymerized) adj streptavidin) (poly$1SA) OR (streptavidin near5 (cross$1link glutaraldehyde))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/26 08:25
S51	144	S50 not S49	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:05
S52	107	S51 and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:07

S53	17	S52 and adsor$9	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:07
S54	362	S47 and (particle microparticle bead dynabead microsphere)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:11
S55	135	S54 not S49 and @py<="2002"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2005/05/25 18:11

? b medicine
? s (polystyrene or latex)(s)(microparticle or particle or bead) and (adsorbed or adsorption) and py<=2002
185610 POLYSTYRENE
131555 LATEX
14755 MICROPARTICLE
1198229 PARTICLE
48873 BEAD
22606 (POLYSTYRENE OR LATEX)(S)((MICROPARTICLE OR PARTICLE) OR BEAD)
266023 ADSORBED
724514 ADSORPTION
112863854 PY<=2002
S3 1854 (POLYSTYRENE OR LATEX)(S)(MICROPARTICLE OR PARTICLE OR BEAD) AND (ADSORBED OR ADSORPTION) AND PY<=2002
? s s3 and (protein or streptavidin or avidin or biotin)
1854 S3
9177920 PROTEIN
30278 STREPTAVIDIN
42384 AVIDIN
98618 BIOTIN
S4 367 S3 AND (PROTEIN OR STREPTAVIDIN OR AVIDIN OR BIOTIN)
? s s4 and (magnetized or magnetic or magnetite)
367 S4
21727 MAGNETIZED
2788056 MAGNETIC
37099 MAGNETITE
S5 16 S4 AND (MAGNETIZED OR MAGNETIC OR MAGNETITE)
DIALOG(R)File 5:Biosis Previews(R)

0009532702 BIOSIS NO.: 199598000535
Binding of biotinylated DNA to streptavidin-coated polystyrene latex
AUTHOR: Huang Shao-Chie; Swerdlow Harold; Caldwell Karin D (Reprint)
AUTHOR ADDRESS: Dep. Chem. and Fuels Eng., Univ. Utah, Salt Lake City, UT 84112, USA**USA
JOURNAL: Analytical Biochemistry 222 (2): p441-449 1994 1994
ISSN: 0003-2697
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Binding of biotinylated DNA to streptavidin-coated polystyrene latex
1994

ABSTRACT: The binding of 5'-end biotinylated DNA fragments was compared between streptavidin (SA)-coated commercial M-280 magnetic latex particles with a diameter of 2.8 mu-m and adsorption -coated polystyrene (PS) latex standard particles whose diameter is 0.272 mu-m. Amino acid analysis showed the protein content of the commercial particles to correspond to 4 times monolayer coverage, while the adsorption-coated PS particles displayed monolayer coverage, or 8 pmol/cm-2 . A fluorescence-based method was developed to quantify the adsorption of FITC-labeled SA, biotin, and biotinylated DNA. The validity of the method was substantiated for the labeled protein by both amino acid analysis and a colorimetric protein assay. While the specific binding of

DIALOG Medicine DB
10/774325

biotin was 0.38 mol per mole of SA on the adsorption-coated 0.272-mu-m particles and slightly higher (0.6 mol per mole SA...

...specific binding of the bulky biotinylated 300-bp DNA was more favorable on the smaller particle (0.12 mol per mole SA for 0.272 mu-m versus 0.04 mol...
...REGISTRY NUMBERS: STREPTAVIDIN; ...

...BIOTIN
DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: STREPTAVIDIN; ...

...BIOTIN
MISCELLANEOUS TERMS: ...BIOTIN;

5/K/2 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09190100 Genuine Article#: 376VR Number References: 55
Title: Enzyme multilayers on colloid particles: Assembly, stability, and enzymatic activity
Author(s): Caruso F (REPRINT) ; Schuler C
Corporate Source: MAX PLANCK INST COLLOIDS & INTERFACES,/D-14424 POTSDAM//GERMANY/ (REPRINT)
Journal: LANGMUIR, 2000, V16, N24 (NOV 28), P9595-9603
ISSN: 0743-7463 Publication date: 20001128
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

, 2000
Abstract: Colloidal biocatalysts, comprising polystyrene (PS) carrier particles coated with enzyme multilayers, were fabricated via the layer-by-layer self...

...polyelectrolyte complexes were assembled in alternation with oppositely charged polyelectrolytes onto PS particles. Microelectrophoresis, single-particle light scattering, and transmission electron microscopy confirmed stepwise growth of the multilayer films on the...
...as catalysts). Whereas no loss in activity was observed for the enzymes immobilized directly onto particle surfaces, precomplexing the enzymes with polymer in solution drastically reduced their activity (by up to 70%). The enzymatic activity (per particle) was found to increase with the number of enzyme layers immobilized, irrespective of whether the...

...enzyme-polyelectrolyte complexes displayed a significantly lower enzymatic activity than those fabricated by the direct adsorption of free enzyme. Multicomponent films of GOD and POD on colloid particles were also prepared, and sequential enzymatic catalysis was demonstrated. Furthermore, experiments were conducted with particles exhibiting both magnetic and catalytic functions. These particles, premodified with a layer of magnetic nanoparticles to impart a magnetic property and subsequently coated with enzyme multilayers, were repeatedly used as catalysts following their rapid...

...Identifiers--CORE-SHELL PARTICLES; BY-LAYER ADSORPTION; MOLECULAR FILMS; GLUCOSE-OXIDASE; PROTEIN FILMS; POLYELECTROLYTE; NANOPARTICLE; SEPARATION; RECOGNITION; PEROXIDASE
5/K/3 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05322435 Genuine Article#: VQ295 Number References: 33
Title: NEW DEVELOPMENTS IN PARTICLE-BASED IMMUNOASSAYS - INTRODUCTION
Author(s): BANGS LB
Corporate Source: BANGS LABS INC,979 KEYSTONE WAY/CARMEL//IN/46032
Journal: PURE AND APPLIED CHEMISTRY, 1996, V68, N10 (OCT), P1873-1879
ISSN: 0033-4545
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

, 1996
Abstract: There have been many innovations in diagnostics since white latex particles or microspheres were first used in medical diagnostic applications as "latex" agglutination tests (LAT) in the late 1950's. These innovations include colored particles permitting multivalent...

...Dyed agglutinated particles caught on filters form the basis of another class of tests. Sensitive particle-enhanced turbidimetric assays are in common use and are read with clinical chemistry analyzers via spectrophotometric or nephelometric methods. Particle capture ELISA tests and assays are in common use. The popular new strip tests for...
...analytes. Solid-liquid separations can be made by centrifugal density separation, or filtration, or via magnetic separation of superparamagnetic particles. Single microsphere (and perhaps single molecule sensitivity?) assays are now possible...
Research Fronts: 94-0963 001 (PROTEIN ADSORPTION; HYDROPHILIC SILICA SURFACES; ADSORBED FIBRIN(OGEN))
94-6269 001 (REGIONAL BLOOD-FLOW; CORONARY PERFUSION; ACUTE INFARCT; ISCHEMIC HEARTS; CARDIAC...
Set Items Description
S1 3427 (POLYSTYRENE OR LATEX) AND (MICROPARTICLE OR PARTICLE OR B-EAD) AND (ADSORBED OR ADSORPTION)
S2 569 S1 AND (PROTEIN OR STREPTAVIDIN OR AVIDIN OR BIOTIN) AND P-Y<=2002
S3 1854 (POLYSTYRENE OR LATEX)(S)(MICROPARTICLE OR PARTICLE OR BEA-D) AND (ADSORBED OR ADSORPTION) AND PY<=2002
S4 367 S3 AND (PROTEIN OR STREPTAVIDIN OR AVIDIN OR BIOTIN)
S5 16 S4 AND (MAGNETIZED OR MAGNETIC OR MAGNETITE)
? s s4 and epoxide
367 S4
97869 EPOXIDE
S6 1 S4 AND EPOXIDE
? s s4 and (epoxide or epoxy)
367 S4
97869 EPOXIDE
294726 EPOXY
S7 10 S4 AND (EPOXIDE OR EPOXY)
? t s7/medium,k/1-10
DIALOG(R)File 71:ELSEVIER BIOBASE

00827313 1998064218
Capillary electrophoresis of peptides and proteins fused-silica capillaries coated with derivatized polystyrene nanoparticles
Kleindienst G.; Huber C.G.; Gjerde D.T.; Yengoyan L.; Bonn G.K.
ADDRESS: Dr. C.G. Huber, Inst. of Analytical Chem./Radiochem., Leopold-Franzens-University, Innrain 52a, 6020 Innsbruck, Austria
EMAIL: christian.huber@ulbk.ac.at
Journal: Electrophoresis, 19/2 (262-269), 1998, Germany
PUBLICATION DATE: 19980000
CODEN: ELCTD
ISSN: 0173-0835
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 42

DESCRIPTORS:
Capillary electrophoresis; Proteins; Peptides; Derivatized polystyrene nanoparticles; Coated capillary; Hydrophilic surface

CLASSIFICATION CODE AND DESCRIPTION:
82.1.4 - PROTEIN BIOCHEMISTRY / PURIFICATION AND ANALYSIS / Electrophoresis and Isoelectric Focusing

, 1998

...coating the inner wall of 75 mum ID fused-silica capillaries with 40-140 nm polystyrene particles which have been derivatized with alpha-omega-diamines such as ethylenediamine or 1,10-diaminodecane. A stable and irreversibly adsorbed coating was obtained upon deprotonation of the capillary surface with aqueous sodium hydroxide and subsequent flushing with a suspension of the positively charged particles. At pH 3.1, the detrimental adsorption of proteins to the capillary inner wall was suppressed efficiently because of electrostatic repulsion of the positively charged proteins from the positively charged coating which enabled protein separations with maximum efficiencies of 400 000 plates per meter. A substantial improvement of separation efficiency in particle-coated capillaries was observed after in- column derivatization of amino functionalities with 2,3-epoxy-1-propanol, resulting in a more hydrophilic coating. Five basic and four acidic proteins could...

...theoretical plates per meter. Finally, coated capillaries were applied to the high-resolution analysis of protein glycoforms and bioactive peptides.

CLASSIFICATION CODE AND DESCRIPTION:
82.1.4 - PROTEIN BIOCHEMISTRY...

7/K/5 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

07242330 EMBASE No: 1998095030

Capillary electrophoresis of peptides and proteins fused-silica capillaries coated with derivatized polystyrene nanoparticles

Kleindienst G.; Huber C.G.; Gjerde D.T.; Yengoyan L.; Bonn G.K.
Dr. C.G. Huber, Inst. of Analytical Chem./Radiochem.,
Leopold-Franzens-University, Innrain 52a, 6020 Innsbruck Austria
AUTHOR EMAIL: christian.huber@ulbk.ac.at

Electrophoresis (ELECTROPHORESIS) (Germany) 1998, 19/2 (262-269)
CODEN: ELCTD ISSN: 0173-0835
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 42

...coating the inner wall of 75 mum ID fused-silica capillaries with 40-140 nm polystyrene particles which have been derivatized with alpha-omega-diamines such as ethylenediamine or 1,10-diaminodecane. A stable and irreversibly adsorbed coating was obtained upon deprotonation of the capillary surface with aqueous sodium hydroxide and subsequent flushing with a suspension of the positively charged particles. At pH 3.1, the detrimental adsorption of proteins to the capillary inner wall was suppressed efficiently because of electrostatic repulsion of the positively charged proteins from the positively charged coating which enabled protein separations with maximum efficiencies of 400 000 plates per meter. A substantial improvement of separation efficiency in particle-coated capillaries was observed after in- column derivatization of amino functionalities with 2,3-epoxy-1-propanol, resulting in a more hydrophilic coating. Five basic and four acidic proteins could...

...theoretical plates per meter. Finally, coated capillaries were applied to the high-resolution analysis of protein glycoforms and bioactive peptides.

DRUG DESCRIPTORS:
*peptide; *protein; *silicon dioxide; *polystyrene
MEDICAL DESCRIPTORS:
*protein purification
capillary electrophoresis; molecular dynamics; scanning electron microscopy ; adsorption; nanoparticle; article
CAS REGISTRY NO.: 67254-75-5 (protein); 10279-57-9...

1998

S1 3427 (POLYSTYRENE OR LATEX) AND (MICROPARTICLE OR PARTICLE OR B-EAD) AND (ADSORBED OR ADSORPTION)
S2 569 S1 AND (PROTEIN OR STREPTAVIDIN OR AVIDIN OR BIOTIN) AND P-Y<=2002
S3 1854 (POLYSTYRENE OR LATEX)(S)(MICROPARTICLE OR PARTICLE OR BEA-D) AND (ADSORBED OR ADSORPTION) AND PY<=2002
S4 367 S3 AND (PROTEIN OR STREPTAVIDIN OR AVIDIN OR BIOTIN)
S5 16 S4 AND (MAGNETIZED OR MAGNETIC OR MAGNETITE)
S6 1 S4 AND EPOXIDE
S7 10 S4 AND (EPOXIDE OR EPOXY)
S8 5 S4 AND (PH(2W)10 OR PH(2W)9 OR PH(2W)11 OR PH(2W)12 OR PH(-2W)BASIC OR PH(2W)ALKALINE)

? s s3 and (pH(2w)10 or pH(2w)9 or pH(2w)11 or pH(2w)12 or pH(2w)basic or pH(2w)alkaline)
Processing
DIALOG(R)File 5:Biosis Previews(R)

0008194167 BIOSIS NO.: 199293037058
LATEX IMMUNOASSAY OF TRANSFERRIN IN URINE
AUTHOR: BERNARD A (Reprint); CHIA K S; LAUWERYS R
AUTHOR ADDRESS: UNITE TOXICOL INDUSTRIELLE MED TRAVAIL, UNIV CATHOLIQUE LOUVAIN, CLOS CHAPELLE-AUX-CHAMPS 3054, 1200 BRUSSELS, BELG**BELGIUM
JOURNAL: Journal of Immunological Methods 144 (1): p49-56 1991
ISSN: 0022-1759
DOCUMENT TYPE: Article
RECORD TYPE: Abstract

ABSTRACT: A fully automated assay based on latex particle agglutination has been developed for the determination of transferrin in urine. The assay consists of incubating urine samples for 30 min at 50° C with latex particles on which an anti-transferrin antibody has been adsorbed and then quantifying the residual unagglutinated particles with an optical particle counter. The measurable concentration range is 0.5-10 <SYM109>g/l. Intra- and interassay ...
...with established or suspected glomerular involvement. Transferrin and albumin were stable in urine over the pH range 5-9 for 24 h at 37° C, or for 2 weeks at 4° C...

...less stable than albumin during prolonged storage of urine at 4° C. The present latex immunoassay of transferrin may also be adapted to give a turbidimetric reading in which agglutination...
? s s3 and (magnet or magnetize or magnetized or magnetic or magnetite)
1854 S3
94584 MAGNET
1608 MAGNETIZE
21727 MAGNETIZED
2788056 MAGNETIC
37099 MAGNETITE
S13 60 S3 AND (MAGNET OR MAGNETIZE OR MAGNETIZED OR MAGNETIC OR MAGNETITE)
? s s13 and protein
60 S13
9177920 PROTEIN
S14 16 S13 AND PROTEIN

DIALOG
10/774325

File 35:Dissertation Abs Online 1861-2005/Apr
(c) 2005 The Dialog Corporation

? s polystyrene and latex and pH
2949 POLYSTYRENE
1167 LATEX
34400 PH
S3 42 POLYSTYRENE AND LATEX AND PH

? s s4 and protein
42 S4
74294 PROTEIN
S5 6 S4 AND PROTEIN

? type s5/full/1

5/9/1
DIALOG(R)File 35:Dissertation Abs Online

01578828 ORDER NO: AAD97-33568
ADSORPTION BEHAVIOR OF PROTEINS AND COLLODIAL PARTICLES STUDIED USING ATOMIC FORCE MICROSCOPY (LATEX, FERRITIN, POLYSTYRENE)
Author: JOHNSON, CHRISTOPHER ALLEN
Degree: PH.D.
Year: 1997
Corporate Source/Institution: UNIVERSITY OF DELAWARE (0060)
Professor In Charge: ABRAHAM M. LENHOFF
Source: VOLUME 58/05-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 2544. 200 PAGES
Descriptors: ENGINEERING, CHEMICAL
Descriptor Codes: 0542

There is much interest in characterizing the adsorption of proteins and larger colloidal particles at solid-liquid interfaces, as the phenomenon is an important part of a variety of industrial and biological processes. Theoretical studies of the phenomenon often are based on mechanistic simulations of the behavior of individual particles (or protein molecules) interacting with a solid surface. However, direct observations of adsorbed species in the colloidal size range are extremely difficult due to the very small size of the particles involved, and so experimental studies are generally based on indirect, non-localized measurements of the extent of adsorption. The goal in this experimental study was to bridge this gap between theory and experiment by observing directly the adsorption of proteins and particles in the nanometer scale using the high resolution imaging capability of atomic force microscopy (AFM).

? type s5/full/2-4

5/9/2
DIALOG(R)File 35:Dissertation Abs Online

01409482 ORDER NO: AADAA-I9513118
INTERACTION OF PROTEINS WITH MONODISPERSE POLYMER LATEXES

Author: HOU, JAN-MING
Degree: PH.D.
Year: 1994
Corporate Source/Institution: LEHIGH UNIVERSITY (0105)
Advisers: JANICE A. PHILLIPS; MOHAMED S. EL-AASSER
Source: VOLUME 55/12-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 5457. 177 PAGES
Descriptors: ENGINEERING, CHEMICAL; ENGINEERING, BIOMEDICAL
Descriptor Codes: 0542; 0541

The understanding of protein adsorption onto latexes is generally qualitative, because of the many forces involved, many of which are ill defined. To improve this understanding, the present study focused on isolating, from among the many significant forces, electrostatic interactions by using highly surface charged latexes as substrates. Ways were also developed to quantify the hydrophobic and/or van der Waals interactions which are also important.

Highly charged (σ = $-$13.9-60 μC/cm$\sp2$), monodisperse sulfonated polystyrene latex were prepared via emulsifier-free polymerization. Bovine serum albumin was adsorbed onto these latexes (σ = $-$13.9-19.4 μC/cm$\sp2$), under different pH and ionic strengths, to identify the general characteristics of protein adsorption. Increases in surface charge density resulted in a higher degree of adsorption. The effect of pH was consistent with the postulated strong electrostatic interaction. Electrophoretic mobility measurements of the latex FJN-protein conjugates indicated a possible protein conformational and/or orientational change at high levels of adsorbed protein.

Latex particles with even higher surface charge (σ = $-$30-60 μC/cm$\sp2$), were used to study the adsorption of ovalbumin and horseradish peroxidase. The rigidity of these proteins minimized the influence of the conformational change upon adsorption. For ovalbumin adsorption, the effects of pH, ionic strength, and latex surface charge could be explained on the basis of strong electrostatic interaction. The results on horseradish peroxidase adsorption were consistent with a strong electrostatic interaction with respect to the effect of pH only.

A thermodynamic model was proposed, which included the interfacial free energy and electrostatic interaction, and semi-quantitatively explained the ovalbumin adsorption data. The interfacial free energy was included to represent the van der Waals force, hydrophobic interaction and hydrogen bonding between latex and proteins. The present model covers the most important forces in a simple formulation, and its parameters can be experimentally obtained with ease.

5/9/3

1034515 ORDER NO: AADD--83627
ENZYME ADSORPTION TO POLYSTYRENE LATEX
Author: LEWIS, DEREK
Degree: PH.D.
Year: 1987
Corporate Source/Institution: UNIVERSITY OF STRATHCLYDE (UNITED KINGDOM)

(0359)
Source: VOLUME 49/10-B OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 4249. 329 PAGES
Descriptors: HEALTH SCIENCES, PHARMACOLOGY
Descriptor Codes: 0419

The activities of trypsin, acetylated-trypsin, α-chymotrypsin and bovine liver catalase have been studied adsorbed to the particles of a rigorously cleaned polystyrene latex. Physico-chemical techniques including the determination of adsorption isotherms for each of these proteins and also trypsinogen; electrophoretic mobility measurements of the latex particles in the presence and absence of protein and photon correlation spectroscopic analysis of aggregation of the polymer colloid and adsorbed layer thicknesses have been applied to elucidate the nature of the protein adsorption mechanism and the effect of the proteins on the colloid stability of the latex.

In the case of trypsin and α-chymotrypsin, computer graphics of the x-ray diffraction derived tertiary structure of these molecules have been used to interpret results through consideration of orientational forces acting on the protein molecules close to the latex surface.

Adsorption of trypsin to the latex at pH 8.0 led to considerable aggregation of the colloid and the adsorbed enzyme displaced an apparent specific activity 66.6% that of the soluble enzyme at the highest surface coverage achieved. Increasing the surface area available for each enzyme molecule decreased the specific activity observed. Active site titration of the adsorbed trypsin as well as variation of the pH during esterase activity measurement confirmed the presence of active and inactive molecules on the surface with no evidence of pH gradients or diffusional restrictions affecting the enzyme kinetics. Slightly increased rates of autolysis of trypsin were found in the presence of latex.

The substrate Benzoyl-L-arginine ethyl ester was shown to reduce the adsorption of irreversibly inhibited trypsin and the non-ionic surfactant Pluronic F108 also reduced the adsorption level of trypsin with no apparent loss of enzyme activity.

α-chymotrypsin showed very low activity when adsorbed to the polystyrene latex at pH 8.0 and achieved higher adsorption levels than trypsin with no evidence of multi-layer formation and no aggregation of the colloid.

Bovine liver catalase adsorbed strongly to the latex despite its negative charge at pH 7.5, opposite that of the surface and P.C.S. measurements indicated an adsorbed layer thickness corresponding to the dimensions of a monomer or dimer rather than the complete tetramer. (Abstract shortened by UMI.)

5/9/4
DIALOG(R)File 35:Dissertation Abs Online

929141 ORDER NO: AAD86-16831
THE APPLICATION OF ENZYMES TO STUDY THE PROTEIN/SOLID SURFACE INTERACTION
Author: SANDWICK, ROGER KEITH

Degree: PH.D.
Year: 1986
Corporate Source/Institution: LEHIGH UNIVERSITY (0105)
Source: VOLUME 47/06-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 2420. 150 PAGES
Descriptors: CHEMISTRY, BIOCHEMISTRY
Descriptor Codes: 0487

An investigation was performed using enzymes to study the protein interaction at the liquid/solid interface of hydrophobic and hydrophilic surfaces. The advantage of employing enzymes to characterize the adsorption process is that protein structural changes, which have been proposed to accompany this interaction, can be detected by simply monitoring the activity of the enzyme when in the adsorbed state. Any consequent loss of activity (inactivation) would be indicative of a conformational alteration of the enzyme.

The results of this study using several different enzymes demonstrate that conformational changes of the protein can occur upon interaction with a hydrophobic surface under specific circumstances, i.e. when the enzyme / surface area ratio is low. Inactivation isotherms are presented which correlate the amount of inactivation per surface area with the initial enzyme concentration. For most enzymes, a Langmuirian relationship is not observed. Instead, the isotherm reaches a maximum in amount inactivated per surface area and then decreases as higher initial enzyme concentrations are approached. A possible explanation of this behavior, supported by the "active" enzyme per surface area data, is that at increasing enzyme concentrations the faster packing of additional enzyme molecules onto the surface adjacent to an adsorbed enzyme molecule prohibits the "spreading" of that molecule. An equation is given which describes kinetically this process.

Several other studies were performed in order to attempt to provide a better understanding of the protein structural change. Temperature studies indicate the conformational change to be endothermic. Time, temperature, and desorption studies together suggest a reversibility of binding of the protein when adsorbed in the native state, but probably not when in the "spread" state. The inactivation isotherm is dependent on solution variables such as pH and ionic strength. Conformational change was demonstrated to occur more easily on lower energy surfaces. A competition study in which various proteins competed for a limited amount of surface area vs. alkaline phosphatase demonstrated the importance of diffusion and protein size in the overall adsorption process. A sensitive protein assay (10 ng/ml) was designed based on this competition of protein for a limited polystyrene latex surface area.

L15 11 "POLYSTYRENE MICROPARTICLE?" AND PROTEIN AND (COATED OR COATING OR ADSORBED OR ADSORPTION)

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L16 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:245999 CAPLUS
DOCUMENT NUMBER: 136:321516
TITLE: Novel fluorescent labels prepared by layer-by-layer assembly on colloids for biodetection systems
AUTHOR(S): Yang, Wenjun; Trau, Dieter; Renneberg, Reinhard; Yu, Nai-Teng; Caruso, Frank
CORPORATE SOURCE: Department of Chemistry, The Hong Kong University of Science and Technology, Hong Kong, Peop. Rep. China
SOURCE: Materials Research Society Symposium Proceedings (2001), 667(Luminescence and Luminescent Materials), G5.5/1-G5.5/6
CODEN: MRSPDH; ISSN: 0272-9172
PUBLISHER: Materials Research Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fluorescent polystyrene microparticles with different sizes were produced by the consecutive assembly of fluorescently labeled polyelectrolytes using the layer-by-layer self-assembly method. Film growth was characterized by microelectrophoresis and fluorescence microscopic image (FMI) anal. Alternating neg. and pos. <SYM120>-potentials with deposition of each successive polyelectrolyte layer demonstrated that the alternate adsorption of polyelectrolytes was achieved. FMI anal. provided direct measurement of the fluorescence intensity of single microparticles. The subsequent deposition of a protein (IgG, IgG) layer onto the fluorescent microparticles was confirmed by a sandwich immunoassay.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:220405 CAPLUS
DOCUMENT NUMBER: 136:246387
TITLE: Composition comprising immunogenic microparticles
INVENTOR(S): Plebanski, Magdalena
PATENT ASSIGNEE(S): The Austin Research Institute, Australia
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022164	A1	20020321	WO 2001-AU1160	20010914 <--

PRIORITY APPLN. INFO.: AU 2000-117 A 20000914
AU 2001-4888 A 20010510
AU 2001-4962 A 20010514
WO 2001-AU1160 W 20010914

AB The invention provides an immunogenic composition comprising at least one antigen in association with microparticles, wherein the microparticles are in the same size range as viruses. In addition the invention also provides vaccine compns. and methods of eliciting immune responses in a subject.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:628078 CAPLUS
DOCUMENT NUMBER: 133:219799
TITLE: Simultaneous analysis of an analyte and an interfering substance using flow cytometry and microparticles
INVENTOR(S): Watkins, Michael; Edwards, Richard B.
PATENT ASSIGNEE(S): Bio-Rad Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051814	A1	20000908	WO 2000-US5608	20000302 <--

PRIORITY APPLN. INFO.: US 1999-263399 A 19990305

AB The present invention relates to a method of assay and in particular, a method of flow cytometric immunoassay for simultaneous anal. of an analyte and an interfering substance using specific binding microparticles and labeled agents. A flow cytometric immunoassay (FCIA) for determination of rubella IgG as analyte and of rheumatoid factor and HAMA (human antimouse antibody) as interferents used magnetic microparticles sep. coated with rubella antigen, mouse IgG F(ab')2 fragments, and rabbit IgG; and anti-human IgM conjugate with phycoerythrin and anti-human IgG phycoerythrin conjugate.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:129506 CAPLUS
DOCUMENT NUMBER: 132:177703
TITLE: A biosensor array chip and its use in a biochemical detection apparatus
INVENTOR(S): Takei, Hiroyuki; Sakamoto, Takeshi
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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JP 2000055920 A2 20000225 JP 1998-221322 19980805 <--
JP 3524390 B2 20040510
PRIORITY APPLN. INFO.: JP 1998-221322 19980805
AB A highly sensitive biosensor array chip used in a biochem. detection apparatus is conveniently constituted for simultaneously detecting multiple substances in a test sample. The base plate of the sensor coated with metal thin membrane (e.g., gold, silver, copper, platinum, aluminum) is divided into multiple sections, and one layer of polystyrene microparticles modified with a resp. biol. mol. (e.g., antibody, antigen, single stranded DNA, receptor, ligand, enzyme) are immobilized on each section by adsorption. A substance (e.g., antigen protein) to be detected in the sample is modified with a fluorescent dye, and the sample is added to the base plate. Then, the antigen protein is adsorbed to polystyrene particles due to its ability to specifically bind with the antibody on the particles, and the fluorescent dye is consequently bound to the particular section on the base plate. The fluorescent signal generated by irradiating excitation light to the section is monitored with a camera through an optical system. In another example, the surface plasmon interaction between gold thin membrane and gold microparticles was used for detection.

L16 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:496878 CAPLUS
DOCUMENT NUMBER: 132:90239
TITLE: In-process testing of acridinium for conjugation with protein coated microparticles and application in chemiluminescence based analyzer
AUTHOR(S): Shah, D. O.; Smith, A. H.; Blazejak, C.; Chandra, T.
CORPORATE SOURCE: Abbott Diagnostics Division, Abbott Laboratories, Abbott Park, IL, 60064, USA
SOURCE: Bioluminescence and Chemiluminescence: Perspectives for the 21st Century, Proceedings of the International Symposium on Bioluminescence and Chemiluminescence, 10th, Bologna, Sept. 4-8, 1998 (1999), Meeting Date 1998, 130-133. Editor(s): Roda, Aldo. Wiley: Chichester, UK.
CODEN: 67YCAD
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A novel affinity-format method has been developed for preparing activated acridinium labeled latex microparticles. These particles are nonbiohazardous, uniformly distributed, monodispersed, and have chemiluminescence (CL) light emission profiles closely resembling the CL immunoassay. For relative light unit, RLU5O detns. where readings are anticipated to exceed 1,000,000 RLU, the log transformation of the RLU and concentration/volume may be used as a data reduction step. For the intended use of the test method, an acridinium standard could be utilized for the Lumat standardization procedure in addition to a radioactive standard (tritium) calibration procedure. This would yield more representative results of the performance of the instruments for triggered readings. It has been observed that even if multiple Lumate instruments are calibrated to read the Tritium calibration standard the same, RLU values obtained from triggered reading on these instruments could be significantly different. These particles have demonstrated their feasibility in optics calibration of

CL-based instrumentation by means of good linear correlations between net CL photon counts and dilns. of the particles. These particles may also be used for assessing the particle-capture characteristics of membrane-microparticle interaction-based CL analyzers.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:706075 CAPLUS
DOCUMENT NUMBER: 129:321204
TITLE: Use of microparticles having a protein and an antibody adsorbed on them for intranasal drug administration
INVENTOR(S): Cremaschi, Dario; Porta, Cristina
PATENT ASSIGNEE(S): Angelini Ricerche S.p.A. Societa' Consortile, Italy
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846209	A1	19981022	WO 1998-EP2214	19980408 <--

PRIORITY APPLN. INFO.: IT 1997-MI856 A 19970414
WO 1998-EP2214 W 19980408
US 1999-402474 A1 19991118
AB The use of a microparticle having a protein and an antibody adsorbed for intranasal drug administration is described. Thus, peptides adsorbed on microparticles and specifically bound to antibodies were used. The microparticles were suspended in a suitable protein solution and the whole suspension was incubated for 90 min. A second incubation of the microparticles coated with a solution containing a specific antipolypeptide antibody was carried out.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:577146 CAPLUS
DOCUMENT NUMBER: 119:177146
TITLE: Methods of analysis using electrorotation of microparticle complexes
INVENTOR(S): Parton, Adrian; Pethig, Ronald; Burt, Julian
PATENT ASSIGNEE(S): Scientific Generics Ltd., UK
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9316383	A1	19930819	WO 1993-GB241	19930205 <--

PRIORITY APPLN. INFO.: GB 1992-2705 A 19920208

GB 1992-8235 A 19920414
GB 1992-12178 A 19920609
GB 1992-23795 A 19921113
WO 1993-GB241 A 19930205

AB A method of anal. comprises forming complexes between microparticles (e.g. plastic beads), a linking moiety (e.g. an antibody) attached to the microparticle, and a target (e.g. a microorganism) and observing the electrorotation properties of the complex. Electrorotation is produced by applying a rotating elec. field in a plane transverse to the direction of observation. The differing electrorotation properties of the microparticles coated with antibody alone and the complexes are visually observable and, in suitable cases, discrimination is possible between complexes containing live target microorganisms and those containing dead microorganisms. The target may be bound to a labeling moiety (e.g. a gold or magnetic particle) to enhance change in electrorotation properties produced on complex formation. A wide range of target species are detectable, including nucleic acids and proteins. The method of the invention was used e.g. to distinguish between viable and nonviable Escherichia coli, to determine biotin, and to determine PCR product.

L16 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:253258 CAPLUS
DOCUMENT NUMBER: 118:253258
TITLE: Immunoassay for non-A non-B hepatitis using peptide epitopes of the capsid protein of hepatitis C virus
INVENTOR(S): Leahy, David C.; Todd, John A.; Jolley, Michael E.
PATENT ASSIGNEE(S): Baxter Diagnostics Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9222571	A1	19921223	WO 1992-US3635	19920429 <--

PRIORITY APPLN. INFO.: US 1991-714471 A 19910613
US 1991-718052 A 19910620
WO 1992-US3635 A 19920429

AB The title assay uses synthetic peptides comprising the first 38 amino acids of the capsid region containing <SYM179>2 immunodominant epitopes. The assay detects antibodies in the blood sera of patients infected with hepatitis C virus (HCV). Of particular efficacy is a competitive inhibition assay which incorporates in the liquid phase an inhibitor consisting of a peptide containing only 1 of the immunodominant capsid epitopes, which is capable of inhibiting binding of antibodies to all target epitopes present on the solid substrate. Peptide fragments of HCV capsid protein and derivs. of these peptides were coated onto paramagnetic polystyrene microparticles and tested against human HCV antiserum or plasma in a fluorescence enzyme immunoassay to identify immunodominant epitopes.

L16 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:3384 CAPLUS

DOCUMENT NUMBER: 118:3384
TITLE: sample carriers in Edman reaction-based apparatus for amino acid sequencing
INVENTOR(S): Akiyama, Junichi
PATENT ASSIGNEE(S): Shimadzu Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04208863	A2	19920730	JP 1990-341088	19901130 <--

PRIORITY APPLN. INFO.: JP 1990-341088 19901130
AB Polystyrene particles with average particle size of 200-300<SYM109>m was coated with e.g. polyethanolamine for use as sample carriers in Edman reaction-based apparatus for amino acid sequencing. The carriers increase the reaction surface and efficiency.

L16 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:474395 CAPLUS
DOCUMENT NUMBER: 111:74395
TITLE: Method for immunosonic determination of chemical substances in solutions
INVENTOR(S): Karube, Masao; Muramatsu, Hiroshi
PATENT ASSIGNEE(S): Seiko Instruments and Electronics, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63255661	A2	19881021	JP 1987-90071	19870413 <--

PRIORITY APPLN. INFO.: JP 1987-90071 19870413
AB In chemical substance determination in a solution, the chemical substance-adsorbing ligand is immobilized on a carrier and reacted with the test substance for adsorption. The complex is then treated with microparticles (latex) containing immobilized ligand capable of binding the chemical substance. The bound microparticles are irradiated at a given wavelength for a given period of time. The sonic wave generated is then measured for the test substance determination A glass plate immobilized with protein A was placed in a reaction cell and to this was added test human IgG. The plate was washed, reacted with anti-human IgG-immobilized polystyrene latex (0.5 <SYM109>m diameter), again washed, irradiated at 500 <SYM109>m, and the 200 Hz signal in a pressure transducer was read for sonic strength determination for human IgG concentration measurement.